

REMARKS/ARGUMENTS

Favorable reconsideration of this application, in light of the present amendments and following discussion, is respectfully requested.

Claims 1-7, 9, and 10 are pending. Claims 1, 2, 3, 4, 5, and 6 are amended. Claim 8 is canceled without prejudice or disclaimer. Support for the amendments to Claims 1, 4, and 5 can be found in Figs. 3 and 4, for example. Support for the amendment to Claim 2 can be found in Fig. 6 and on page 13, line 15-page 14, line 3, for example. Support for the amendments to Claims 3 and 6 is self-evident. No new matter is added.

In the outstanding Office Action, Claim 4 was rejected under 35 U.S.C. § 112, second paragraph, as indefinite.¹ Claims 1-6 were rejected under 35 U.S.C. § 102(b) as anticipated by Fujii et al. (U.S. Patent Pub. 2002/0106267, herein "Fujii"). Claims 7 and 8 were rejected under 35 U.S.C. § 103(a) as obvious over Fujii.

Regarding the rejection of Claim 4 as indefinite for reciting "just closing," that rejection is respectfully traversed. The term "is just closing" is replaced in amended independent Claim 4. Accordingly, Applicants respectfully submit that amended independent Claim 4 does not include an indefinite relative term, and the rejection of Claim 4 as indefinite is overcome.

Regarding the rejection of Claims 1-6 as anticipated by Fujii and the rejection of Claims 7 and 8 as obvious over Fujii, those rejections are respectfully traversed by the present response.

As Claim 8 is canceled, Applicants respectfully submit that the rejection of Claim 8 is negated.

¹ Applicants understand the outstanding Office Action to refer to Claim 4 when discussing the term "just closing."

The invention recited in independent Claims 1 and 4 recites that (i) when the wafer transferring operation is performed, the clean box is fixed to overlap the tab of the clean box over an outside surface of the wall on which the first opening portion is formed with a first clearance formed around the entire perimeter of said first opening portion, and (ii) the first clearance is defined by a predetermined constant distance along an entire perimeter of the opening of the clean box between a surface of the tab and the outside surface of the wall on which the first opening portion is formed.

One benefit of the invention recited in Claims 1 and 4 is that the constant distance between the tab and the wall of the mini-environment portion along an entire perimeter of the opening of the clean box can reduce the turbulence created when the door of the mini-environment is opened and closed.

In contrast, Fujii describes a container (102) (relied on in the outstanding Office Action as corresponding to the clean box of the present invention) positioned in front of the opening (a space between numeral 105 and 105A in Fig. 3A of Fujii) with a clearance. In addition, in Fig. 5A, Fujii describes a constant thickness lid.

However, Fujii fails to teach or suggest that the clean box is fixed to overlap a tab of the clean box over an outside surface of the wall on which the first opening portion is formed with a first clearance with a constant width formed around the entire perimeter of said first opening portion when the wafer transferring operation is performed. This feature reduces turbulence at the boundary portion between the outside and inside of the clean box and inside of the chamber of the mini-environment.

As shown in Fig. 1, the container (102) does not include any tab. Rather, at the top part of the container (102) in Fujii, it is likely that unwanted turbulence will occur because there is no member to prevent such turbulence at the boundary portion. In addition, at the

bottom of the container (102) in Fujii, the cross section of the opening by the lid is too large to maintain cleanness.

Furthermore, Fujii fails to teach or suggest that the first clearance is defined by a **predetermined constant distance along an entire perimeter of the opening of the clean box between a surface of the tab and the outside surface of the wall** on which the first opening portion is formed.

The outstanding Office Action asserts that Figs. 3A and 3B, when combined with the embodiment of the cover (502) and container (501) shown in Fig. 5A, would include a predetermined constant distance between the recited surfaces correlating to the first clearance discussed above. The outstanding Office Action states:

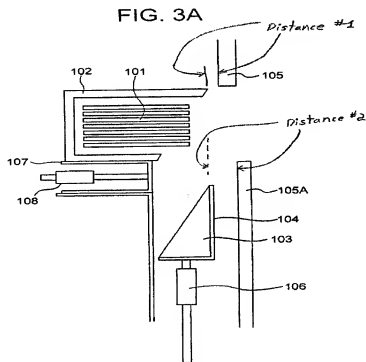
[T]he clean box is fixed with a first clearance (the first clearance is a vertical wall-like clearance or gap formed between the container and the mini-environment) formed around the entire perimeter of the first opening portion, the first clearance defined by a predetermined constant distance between a coplanar surface extending outside from the opening of the clean box and an outside surface of the wall on which the first opening portion is formed. (See Figures 3A and 3B). Although not illustrated in Figures 3A and 3B, the clean box can have a coplanar surface extending outside from the opening. See Figure 5A and paragraphs 82-84. With this embodiment, a predetermined constant distance between such surface and an outside surface of the wall on which the first opening is formed would also define the first clearance.²

Thus, the outstanding Office Action asserts that use of a shape of the cover (502) in relation to a shape of the container (501) as shown in Fig. 5A would provide a constant distance between the outside surface of the wall on which the first opening portion is formed and the coplanar surface extending from the opening of the clean box.

However, assuming arguendo that the cover (502) and container (501) were inserted into the apparatus described in Figs. 3A and 3B, Fujii would still fail to teach or suggest the

² Outstanding Office Action, page 3.

recited **predetermined constant distance along an entire perimeter of the opening of the clean box between a surface of the tab and the outside surface of the wall**. Rather, as shown in annotated Fig. 3A below, the wall (105) at the top of the opening in the high cleanliness room is offset from the lower portion of the wall (105A).



As shown in Fig. 3A, the offset between the sections of the wall (105) and (105A), even if the cover and container shown in Fig. 5A were used, would produce a set of different distances (distance 1) and (distance 2), which are not equal to each other. Accordingly, even under the scenario set forth on page 3 of the outstanding Office Action, Fujii fails to teach or suggest all of the features of independent Claim 1.

Fujii offsets the portions of the wall (105) and (105A) in order to allow the driving mechanism (106) to move in a purely vertical direction. Fujii states that specific benefits are derived by limiting the movement of the driving mechanism (106) to a vertical direction.

Fujii states:

According to the conventional means, since a single driving mechanism moves the container in both of the horizontal and vertical directions, the driving mechanism

becomes complex and the cost thereof increases. In addition, there is a problem in which accuracy of the operation in the driving mechanism is lowered. Contrary to the conventional driving mechanism, in the present invention, the driving mechanism 106 moves the apparatus in the vertical direction, and the stage driving mechanism 108 moves the apparatus in the horizontal direction. More specifically, since each driving mechanism moves the apparatus in only one direction, driving mechanisms comprising simple elements can be applied, thus improving accuracy of the operation and lowering the required cost thereof.³

Accordingly, not only does Fujii fail to teach or suggest the constant clearance recited in independent Claim 1, but Fujii derives specific benefits by providing an **offset** between the portions of the wall (105) and (105A).

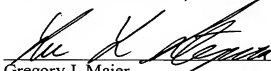
Nor does Fujii teach or suggest a **tab**, much less that the tab overlaps an outside surface of the wall of the mini-environment. Rather, as shown in Figs. 1-3B and 5A, Fujii merely describes a constant thickness lid of the clean box and does not disclose that the tab of the clean box is overlapped over an outside surface of the wall. Thus, Fujii does not disclose, teach or suggest the recited tab with the first clearance.

³ Fujii, numbered paragraph [0072].

Accordingly, Applicants respectfully submit that independent Claim 1, Claims 2, 3, 5, 7, and 9 depending therefrom, independent Claim 4, and Claim 10 depending therefrom patentably distinguish over Fujii for at least the reasons discussed above.

Respectfully submitted,

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